

Remarks/Argument

The courtesies extended and helpful comments provided to applicant and applicant's representative by Examiner Harper during the personal interview conducted November 19, 2004 are acknowledged and appreciated. During the aforementioned personal interview applicant demonstrated a search system incorporating features and aspects according to one embodiment of the invention including a product called "MineIt!" referenced in the subject patent application. As indicated by the Interview Summary issued by the Examiner, claims 1 and 11 were discussed during the interview together with the Clements articles. Consistent with discussions, the claims of the instant application are amended to further distinguish the invention over the applied art by emphasizing subject matter of dependent claims 11-13. Thus, claim 1 is amended by incorporating therein a step of identifying a set of audio segments based on intrinsic data associated with the audio segments. Similar amendments have been made of independent claims 15, 16, 29 and 30.

The subject matter of the dependent claims having been incorporated into independent claim 1, claim 11 is amended to further define that the identifying step includes constraining the set of audio segments to those audio segments selected for processing based on intrinsic data, this occurring prior to performance of the searching step. Constraining the set of audio segments as described in the specification at, for example, paragraph numbers 108, 112 of the present application as published:

...By selecting an item from any one viewport, all other may be configured to automatically filter their results to match the selection. For instance, if the user

selects the station "4121" from the tree, Alerts, Call History, and Speech Results viewports will be constrained only to calls that were recorded for the selected station "4121". Furthermore, if the user then selects a specific call from the CallHistory viewport, then the Speech Results viewport may be configured to be constrained only to speech-results associated with the currently selected call. ...

...A typical use of the system is to first use the speech mining feature to constrain the calls to the one that have been selected for processing, and then invoke the speech processor for the calls that have been selected. ...

Dependent claim 12 is amended to require that the intrinsic data be in the form of metadata. Although this specific term "metadata" was not used in the original specification as filed, it would have been understood by one skilled in the art at the time the application was filed to mean "data about data" including the types of data specified in claim 13 (CTI) and claim 14 (DNIS, ANI and Agent ID) as evidenced by Glowney et al, Patent Publication No. US 2001/0040942 ("Glowney") cited and applied by the Examiner, e.g.:

...The recorded digitized audio is then combined with descriptive information ("metadata") obtained through a Computer Telephony Integration (CTI) communications link with the PBX...

Glowney, Paragraph 0032;

...Functionally, the Call Record Generator (CRG) produces Master Call Records, which encapsulate information (metadata) describing a telephone call. ...

Glowney, Paragraph 0039;

...The CTI Server is responsible for supplying certain metadata regarding telephony events to the Voice Server's Call Record Generator 150. This metadata, such as called party and calling party numbers, trunk and channel ID, date and time, agent ID, etc., is combined by the Call Record Generator along with the other metadata, and data that is provided by the Audio Recorder 145 itself. ...

Glowney, Paragraph 0044;

...The CRG is responsible for collecting data from different sources with respect to portions of a call on various recording input channels, and merging them

together into a unified call record. One of these sources is the recorder that creates the files containing media. Another sources provides metadata describing the when, who, why and where information of a call. This call record metadata comprises the start and stop times of a segment within a call, as well as CTI data such as telephone numbers and agent IDs. These metadata sources include but are not limited to Telephony switches and Trunked Radio servers. The CRG depends upon the CTI Server to normalize data from these sources....

Glowney, Paragraph 0160;

...The term "Metadata" refers to informational data associated with multimedia data describing its contents....

Glowney, Paragraph 0187.

Similar amendments are made to claim 26 dependent from independent claim 16.

In view of the amendments to the claims, the rejections of claims 1, 2, 4, 8, 9, 11, 16, 17, 19 and 23-26 under 35 USC §102(a) and claims 3, 5-7, 10, 15, 18, 20-22, 25, 29 and 30 under 35 USC §103(b) are rendered moot, the sole substantive rejection to be addressed concerning the limitations of claims 12, 13, 14, 27 and 28 as originally filed. Specifically, in connection with the language of claim 12 (now incorporated into each of the independent claims) requiring a step of identifying [a set of audio segments based on] intrinsic data [associated with the audio segments], the Examiner has taken the position that such subject matter is rendered obvious over Clements in view of Glowny. According to the Examiner, while Clements does not describe identifying [the audio segments] responsive to intrinsic data, "the examiner contends that this concept was well known in the art, as taught by Glowny." Office Action of August 2, 2004 at page 10. It is the Examiner's position that "Glowny also teaches the use of additional data (i.e., 'intrinsic data) along with the voice recordings" [citing to paragraph 3 of Glowny]. However, for the reasons that follow and discussed during the recent interview, the rejection is believed to be improper and withdrawal thereof is respectfully requested.

Glowny describes a system and method for recording and storing telephone call information. According to the Abstract:

...In a preferred embodiment the system and method identify telephone call segments that relate to one telephone call and construct a data representation of a lifetime of the telephone call, using data regarding telephony events associated with the telephone call segments of the telephone call. ...

More specifically, the section of the publication cited and relied upon by the Examiner describes a system for locating an audio segment but fails to describe or suggest searching that or any other audio segment for any particular content or search terms:

[0003] With the advent of computer telephony integration (CTI), it is now possible to monitor a data link that supplies more information about telephone calls, in addition to simple voice recording. In a typical CTI system a telephone switch or private branch exchange (PBX) provides an interface suitable for processing by a computer, and expanded information about telephone calls is made available through this interface as the calls occur. Data fields that are available within this expanded information may include the external telephone number of the calling party, as well as identification numbers to help associate a series of events pertaining to the same call. With such a data link being used alongside a voice recording system, the search and retrieval system can be supplemented by constructing a database that combines the previously discussed basic search criteria with enhanced search criteria (based upon information obtained through a CTI data link) such as: telephone numbers of parties involved in the call; Caller ID (CLID) or Automatic Number Identification (ANI); Dialed Number Identification Service (DNIS); or the Agent ID Number of the Customer Service Representative.

Glowny at paragraph 3.

Thus, while Glowny uses metadata including CTI data to locate a targeted telephone call, it fails to describe or suggest using such data to select some subset of audio segments that are then subject to being searched to determine if one or more contain certain specified content. In particular, Glowny alone or in combination with Clements fails to describe or suggest the subject matter of the independent claims as presently amended including:

*defining a phrase to use for searching;
defining a minimum confidence level for searching;
identifying a set of said audio segments based on intrinsic data associated with said audio segments;
searching said set of audio segments for said phrase; and
producing a set of results of all occurrences of the phrase within the set of audio segments and the confidence that a given occurrence is a match for the search phrase.*

Claim 1 as amended;

*connecting a plurality of calls to at least one customer service representative;
recording audio segments from each of said plurality of calls;
defining a phrase to use for searching;
defining a minimum confidence level for searching;
identifying a set of said audio segments based on intrinsic data associated with said calls;
searching said set of audio segment for said phrase; and
producing a set of results of all occurrences of the phrase within the audio segments and the confidence that a given occurrence is a match for the search phrase.*

Claim 15 as amended;

*control logic operable to (i) define a phrase to use for searching and define a minimum confidence level for searching and (ii) identify a set of audio segments based on intrinsic data associated with said audio data; and
a search engine operable to search *[[a]]* said set of audio segment for said phrase and produce a set of results of all occurrences of the phrase within the set of audio segments and the confidence that a given occurrence is a match for the search phrase.*

Claim 16 as amended;

*a switch configured to connect each of a plurality of calls to a customer service representative workstation;
a memory connected to said switch and configured to record audio segments from each of said plurality of calls;
a supervisory terminal configured to (i) define a phrase to use for searching and a minimum confidence level for searching and (ii) identify a set of said audio segments from ones of said plurality of calls selected by said supervisory terminal based on intrinsic data associated with respective ones of said calls;*

*a search engine connected to said supervisory terminal and to said memory for searching said set of audio segment for said phrase; and
a display connected to said search engine and configured to produce a set of results of all occurrences of the phrase within the audio segments and the confidence that a given occurrence is a match for the search phrase.*

Claim 29 as amended; or

*storing an audio segment segments in a speech repository;
storing information regarding each of the audio segment segments in a database;
identifying a set of audio segments from amongst said audio segments based on information regarding each of the audio segments
establishing a search criteria including speech and SQL criteria for locating for spoken words or phrases in said audio segment using speech recognition technology;
searching said set of audio segment segments and said database in accordance with said search criteria; and
providing a report based on said search.*

Claim 30 as amended.

Thus, for the reasons presented, independent claims 1, 15, 16, 29 and 30 are each considered to be distinguishable over the applied art. Claims 2-14 and 17 – 28 each describe additional limitations not taught or suggested by the art of record in the claimed combinations and are considered to be allowable as, inter alia, dependent from the allowable subject matter of the respective base claims.

The rejection of the claims is further traversed and believed to be improper for failure of the applied references to suggest or otherwise provide motivation for making the asserted combination. While the reasoning set forth in the Office Action asserts that additional information associated with a voice file can aid searching, merely realizing that a combination provides certain advantages using Applicants' claims as a template amounts to no more than impermissible hindsight. The mere fact that references can be combined or modified does not

render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." (916 F.2d at 682, 16 U.S.P.Q.2d at 1432.). See also In re Fritch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

It is well established that, even if all aspects of the claimed invention were individually known in the art, such is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). It is, therefore, incumbent upon the Examiner to provide some suggestion of the desirability of doing what the inventor has done in his formulation, imposition and maintenance of a rejection under 35 U.S.C. 103(a). "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985).

Thus, for the reasons presented, the combinations asserted by the Examiner are believed to be improper thereby rendering the rejection under 35 U.S.C. §103(a) improper. Accordingly, withdrawal of the rejection is respectfully requested.

In view of the foregoing, the application including claims 1-30 is now considered to be in condition for allowance and an early notification thereof is respectfully requested.

A petition for a one month extension of time and the corresponding fee accompanies this Amendment. However, if any other fee is due, please charge our Deposit Account No. 06-2375, under Order No. 436.006/09903737 from which the undersigned is authorized to draw.

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Respectfully submitted,

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